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COMPENSATION
PROGRAM

BC hydro

BRITISH COLUMBIA

Simpson Lake Rainbow Trout Transplant Assessment, 1999

R. J. Zemlak
May 2000

PWFWCP Report No. 216

The Peace/Williston Fish & Wildlife Compensation Program is a cooperative venture of BC Hydro and the provincial fish and wildlife management agencies, supported by funding from BC Hydro. The Program was established to enhance and protect fish and wildlife resources affected by the construction of the W.A.C. Bennett and Peace Canyon dams on the Peace River, and the subsequent creation of the Williston and Dinosaur Reservoirs.

Peace/Williston Fish and Wildlife Compensation Program, 1011 Fourth Ave. 3rd Floor, Prince George B.C. V2L 3H9

Website: *www.bchydro.bc.ca/environment/initiatives/pwcp/*

This report has been approved by the Peace/Williston Fish and Wildlife Compensation Program Fish Technical Committee.

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Author(s): Randy J. Zemlak[1]
Address(es): [1] Peace/Williston Fish and Wildlife Compensation Program, 1011 Fourth Ave., 3rd Floor Prince George, B.C. V2L 3H9

SIMPSON LAKE

WATERSHED:	Pine River
DATE OF SURVEY:	Sept. 10 and 11. 1999
FIELD CREW LEADER:	Randy J. Zemlak
FIELD ASSISSTANT:	Arne R. Langston

PEACE/WILLISTON FISH AND WILDLIFE COMPENSATION PROGRAM

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FISH AND WILDLIFE BRANCH

REPORT PREPARED BY: RANDY J. ZEMLAK

105-02279/

INTRODUCTION

Simpson Lake is located approximately 35 km northeast of the town of Mackenzie BC (Figure 1). The lake has received some attention over the past 10 years from fish biologists with both the Ministry of Environment, Lands and Parks (MELP) and the Peace/Williston Fish and Wildlife Compensation Program (PWFWCP). In 1991, the PWFWCP conducted a standard fisheries baseline reconnaissance level survey of Simpson Lake (Langston and McLean 1991). The results of this survey indicated that the lake was barren of fish. The intent of the survey was to identify potential fisheries enhancement projects, and to identify any possible stocking options. This reconnaissance report can be viewed at the PWFWCP office (address on cover page).

The reconnaissance survey indicated that the lake is suitable for a sport fish introduction. The outlet to Simpson Lake flows into the Pine River so hatchery fish (non-native to the system) were not a suitable candidate. In 1993, a donor source of rainbow trout, from Williston Reservoir "east slope" wild stock, was then identified at the intake towers of the W.A.C. Bennett Dam. After the donor source of rainbow trout was approved, a transplant program was initiated in 1994 (Langston and Zemlak 1994). This rainbow trout transplant report can also be viewed at the PWFWCP office (address on cover page).

In 1994, Simpson Lake was first stocked with rainbow trout. The lake was not stocked in 1995 but did receive additional rainbow trout in the following three years (1996, 1997, and 1998). This lake has never been assessed throughout the past four stocking years. In 1999, the lake was targeted as a high priority for an evaluation as part of the original objectives of the transplant project. Therefore, in September 1999, an assessment on rainbow trout in Simpson Lake was carried out.

LAKE LOCATION

Location:	35 km northeast of Mackenzie BC
Elevation:	± 1,204 m
Latitude/Longitude:	55° 32' 04" : 122° 40' 15"
U.T.M.:	10.520776.6154521 (NAD 83)
Management Unit:	7-31
N.T.S. Map No.:	93 - O/10
Watershed:	Pine River
Waterbody Identifier:	00511PINE
Lake Drainage:	unnamed outlet cr.--->Pine R.--->Peace R.

Figure 1. Location of Simpson Lake.

DONOR FISH CAPTURE METHODS

From 1994 to 1998 (excluding 1995), attempts were made to capture fish out of the intake towers at the W.A.C. Bennett Dam. In 1994, angling gear was chosen to capture the fish. After approximately one half-hour of fishing in each tower, the fish would become wise to the bait and stop biting. In 1996, a short panel of gill net was used. The net was lowered into the tower, below the water surface, and pulled up about 5 minutes later. Fish would get captured but were obviously stressed in this situation. Therefore, a better method had to be developed to capture the fish.

In 1997/98, a less stressful method of capturing fish was developed. We designed a round basket shaped frame and lined it with a soft, small mesh size net. The net is about 1.25 m in diameter and about 1.0 m high. A long rope was then attached to the basket and the basket was lowered down into the intake tower. The net rested about 3 m below the water surface and was left for five minutes. Fish food was then poured over the location of the basket to entice the fish over the basket. Once the fish had time to settle, the basket was raised quickly, trapping the fish inside. All fish were then quickly removed from the basket and put in a water-filled cooler.

The captured rainbow trout were measured. All fish larger than 20 cm fork length were Floy tagged. Other fish species were also captured. These fish were released back into Williston Reservoir (outside the tower). Finally, the rainbow trout were transported in a fish tank and released into Simpson Lake.

TRANSPLANT HISTORY

The transplant of rainbow trout into Simpson Lake was initiated in 1994 (Table 1). Transplant numbers have increased from year to year due to improved capture techniques over time. The basket style proved to be the most productive way of capturing fish. The lake has received 296 fish to date.

Table 1. Simpson Lake rainbow trout transplant history.

Year	Number Transplanted	Number of fish tagged	Number of fish too small to tag	Tag color
1994	26	20	6	Orange
1995	0	0	0	n/a
1996	62	53	9	All red, 1 was yellow
1997	75	72	3	Red
1998	133	115	18	Blue
Totals	296	260	36	-

SIMPSON LAKE FISH CAPTURE METHODS

The 1999 evaluation of the previous transplants involved the use of three different techniques: electrofishing, Gee trapping, and angling. On September 10, the main inlet and outlet stream were sampled by electrofishing to look for juveniles. The inlet stream, located at the north end of the lake, was surveyed for 60 m. Two biologists shocked in an upstream manner. Then, about 200 m of the outlet was shocked, again in an upstream manner. Lengths and weights were collected for all captured fish.

The second method used to capture fish was by the use of Gee traps. Two Gee traps, set September 10, were baited with sardines and left overnight to fish. One trap was placed at the mouth of the main inlet stream (north shore) and the other was placed right near the entrance to the outlet.

The third method used to capture fish was by the use of angling gear (September 10 and 11). Angling was conducted by PWFWCP biologists (2) and by local volunteers (5) from Chetwynd and Hudson's Hope. Spin cast rods with an assortment of lures and fly rods with dry flies were utilized. Angling was conducted from personal belly boats and an inflatable Zodiac.

The rainbow trout captured by angling were measured and weighed. Any fish that did not already have a Floy tag, and was larger than 200 mm, was tagged. Tag numbers were recorded for all recaptured fish. Scale samples were not collected for age determination. Condition factors (Weight/Length^3 x 100) were also determined for each fish captured. Fish photos were taken and can be viewed at the PWFWCP office.

RESULTS

Electrofishing

A few (5) rainbow trout were captured and another one was observed in the inlet stream (Appendix I). The average length was 74 mm and the average weight was 5.2 g. There were no mortalities while shocking the inlet stream. The captured fish were released back into the stream after sampling. The stream was in a low stage but had a constant flow during the time of the survey. Stream characteristics were 4° C at 9:28 A.M., mean wetted width was 2.0 m, average depth was 20 cm, and the maximum pool depth was 60 cm.

More fish were captured in the outlet as compared to the inlet. The outlet fish captured totaled 94 and an additional 35 were observed in the outlet stream (Appendix I). The range of length for these fish was 39 to 179 mm (mean = 72 mm) while the range of weight was 0.8 g to 75.5 g (mean = 8.4 g) (Figure 2).

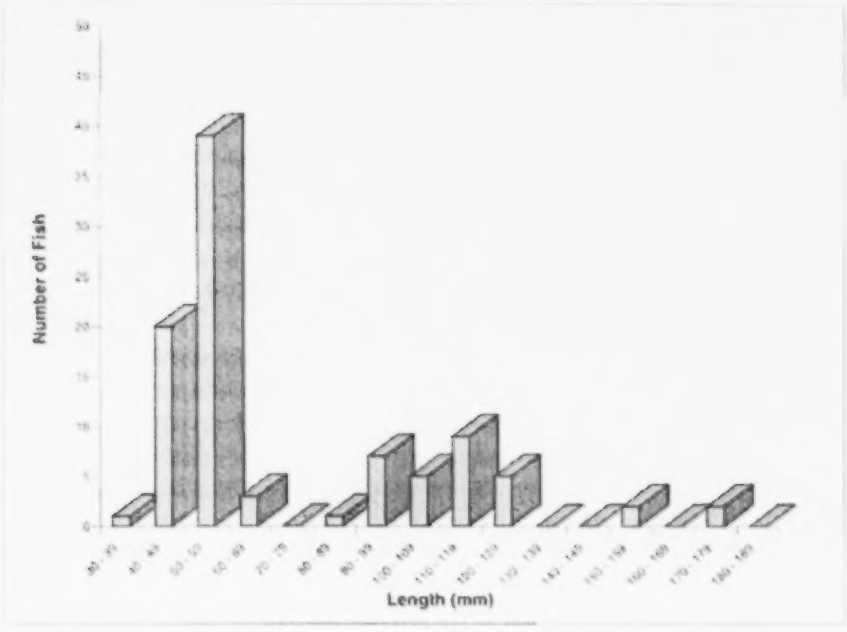

Figure 2. Size of rainbow trout captured by electrofishing in the outlet creek.

The growth of the outlet fish appears to be good. No scale samples were obtained; however, the three modes (Figure 2) likely reflect three age classes: young-of-the-year, 1 +, and 2+. Condition factors were determined for each fish (Appendix II). The average condition factor for all of these outlet fish is 1.3.

The outlet stream had a constant flow, but no stream measurements were recorded. The amount of water flowing from the outlet is estimated to be slightly more than the inlet. There were also eight small impassible cascades located within the 200 m section. The height of these falls ranged from 35 cm to 50 cm and would be impassible (upstream) to these same sized fish already captured in the outlet creek. The water temperature of the outlet was 10° C at 1:30 P.M. Approximately nine fish died from electrofishing. One interesting fact on these fish was that three fish did not have a right eye. After the fish were sampled, they were then released into the lake instead of the creek.

Gee Trapping

The trap set by the inlet fished for 23.5 hours and was set in 55 cm of water on a organic/SWD bottom. The trap was checked the next day and captured no

fish. The trap set by the outlet fished for 25.0 hours and was set in 80 cm of water on a mud/organic substrate. This second trap also captured no fish.

Angling

On September 10, 1999, PWFWCP fish biologists angled for 3.0 hours using two rods (1 spin cast and 1 fly rod) and caught nine rainbow trout. Catch per unit effort was 1.5 fish per rod hour. Of these fish, four of them were recaptures. The largest fish captured was 550 mm long and weighed 2.05 kg. Most fish were a bright silver color and were quite active.

On September 11, five volunteers assisted with the lake stocking assessment. People brought their own boat and fishing gear. A total of 26.5 hours of effort yielded 32 fish between all seven anglers. The catch per unit effort for all anglers is 1.2 fish per rod hour. Of these 32 fish, four fish were recaptures.

Lengths and weights were collected for all 41 fish angled (Appendix II, Figure 3). Previous Floy tags (recaptures) were also recorded. Only one fish died through angling. The number of recaptures was low (n = 8) compared to the number of new fish captured (n = 33). In other words, only about 20 % of the fish captured were recaptures from the four transplant years.

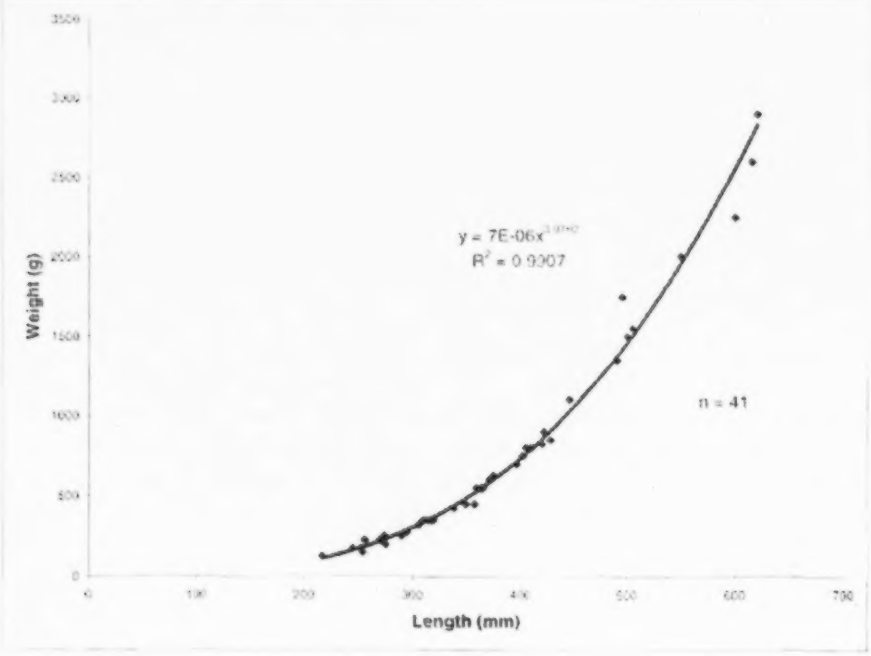

Figure 3. Length versus weight of angled rainbow trout.

Lake: **Simpson**

Fish Growth

Not many recaptured fish were angled during September 10 and 11, 1999 (recapture date) to accurately assess the rate of growth of the transplanted fish. Only eight fish were recaptured through angling (Table 2). Weights of these transplanted fish were not taken from 1996 to 1998 (only lengths were recorded). Therefore, only lengths between years are compared.

Table 2. Change in growth of the 8 recaptured fish.

Floy Tag # and Colour	Transplant Date	Initial Length (mm)	Length at Recapture (mm)	Weight at Recapture (R)	Change in Length (mm)
Red, W0428	July 1996	295	620	2,900	325
Red, W0380	July 1997	258	615	2,600	357
Red, W0390	July 1997	229	600	2,250	371
Red, W0400	June 1997	209	550	2,005	341
Blue, W0598	June 1998	223	490	1,350	267
Blue, W0769	June 1998	228	505	1,550	277
Blue, W0585	June 1998	280	495	1,750	215
Blue, W0801	June 1998	216	500	1,500	284

RAINBOW TROUT POPULATION STRUCTURE

Of the three capture methods used to evaluate the population of fish in Simpson Lake, only two were successful. The electrofishing method was successful in capturing smaller fish (y-o-y and juveniles) and angling was also effective at capturing the larger, mature fish (Figures 4 and 5). These fish are vulnerable to different types of gear. The following graphs (next page) shows how vulnerable the population (size) of fish is to different sampling methods.

FISHERIES MANAGEMENT COMMENTS

The rainbow trout transplanted into Simpson Lake from 1994 to 1998 appear to have established a self-sustaining population. Approximately 80 % of the fish captured were not tagged indicating that they were offspring from the original transplanted fish. Of the 296 fish transplanted into Simpson Lake (Appendix III), 36 of them were too small to tag. It is possible some of the captured fish from 1999 (no tags) could have been from one of the original transplants. Therefore, the percentage of recaptures could be slightly higher.

Lake: **Simpson**

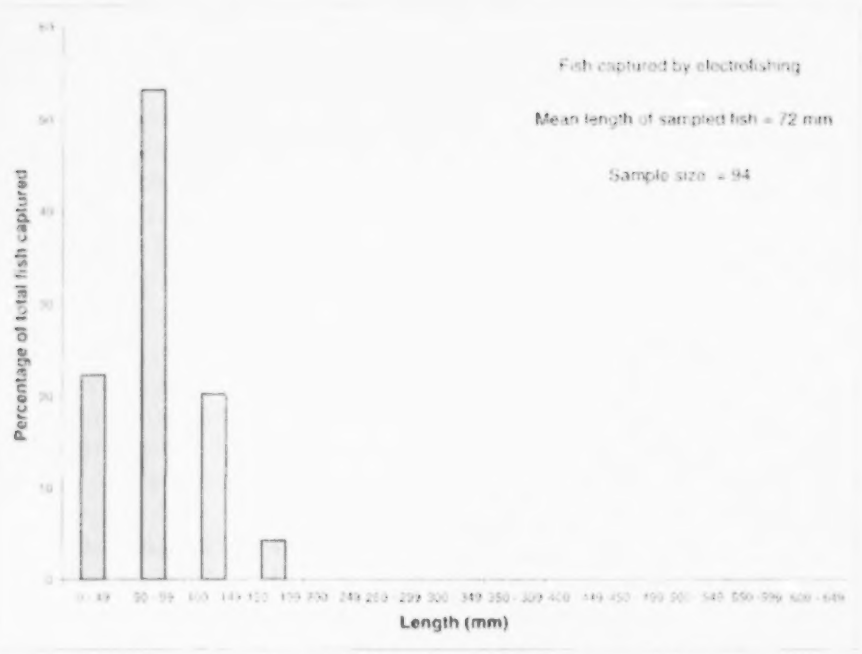
Fish captured by electrofishing
Mean length of sampled fish = 72 mm
Sample size = 94
Percentage of total fish captured
Length (mm)

Figure 4. Size of fish captured by electrofishing.

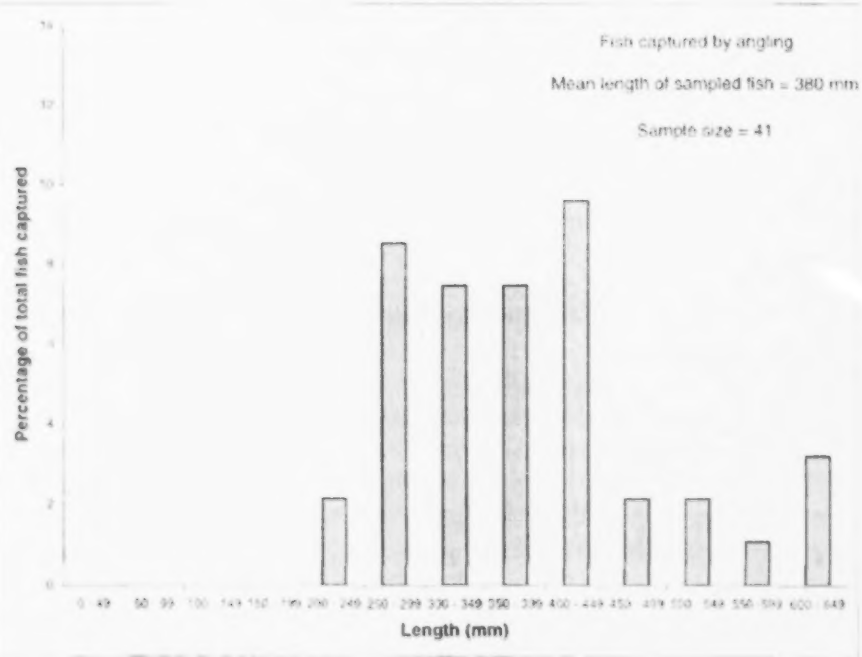

Figure 5. Size of fish captured by angling.

Many yearlings and possible 1 + and 2 + aged fish were captured in the inlet and outlet streams. These fish also represent offspring from the original fish put into the lake. Recruitment into the lake appears to be good, but depends on how far the rainbow trout migrate downstream of the outlet creek.

Angling was quite productive. The angled fish did not show any signs of spawnbound. Most fish were a silver bright colour. The fish fought quite vigorously when captured. The catches per unit effort rates were above average. The volunteers reported that they lost many fish while angling (broken leader), thus catch rates are under estimated.

The length - weight data indicated the rainbow trout have high condition factors (Figure 3). A "b" value over 3 is an indication of heavier fish. The fish in Simpson Lake (1999) have a 'b' value of 3.0762.

Simpson Lake supports what appears to be a relatively healthy population of rainbow trout based on the angling efforts. A self-sustaining population of rainbow trout appears to have been established in Simpson Lake and further transplants are not warranted at this time. However, future stock assessments will be required to evaluate the future management strategies as presented by MELP.

Simpson Lake should provide a good recreational fishery. Currently, the lake is closed to all anglers. It is unknown to what degree Simpson Lake can support for harvesting. The author recommends that when Simpson Lake is available to anglers for the first time, that it be a catch and release fishery. In addition, a voluntary creel would be beneficial. Biologists from the PWFWCP and MELP could provide forms to the volunteers that assisted with the work to date on Simpson Lake. These forms could also be provided to other members of the local Rod and Gun Clubs and the Wilderness Watch Program in the area. The information collected in the creel forms may provide useful information to help determine future management direction for Simpson Lake. A certain amount of poaching is already happening on Simpson Lake (Jim Derby, pers, comm.), but to what extent is unknown.

RECOMMENDATIONS

If the lake is to be opened up for angling in the year 2001/2002, then the following recommendations should be taken into consideration:

1. Catch and release fishery only for the first year;
2. Post signs at the lake indicating current regulations;
3. Barbless hook and bait ban;
4. Closed to ice fishing; and
5. Provide volunteer creel forms to as many potential users as possible.

These recommendations will ideally ensure that the lake does not get overharvested during its first year being open to the public. In addition, the number of fish and size of fish should remain the same for some time in the future. A more thorough assessment of the fish population in Simpson Lake is required after a few years of public angling (i.e. 2003).

LITERATURE CITED

Langston, A.R. and A.R. McLean. 1991. A reconnaissance survey of Simpson Lake. Peace/Williston Fish and Wildlife Compensation Program Report No. 110. 22pp plus appendices.

Langston, A.R. and R.J. Zemlak. 1998. Simpson Lake Rainbow Trout Transplant, 1994. Peace/Williston Fish and Wildlife Compensation Program Report No. 139. 9pp.

ACKNOWLEDGEMENTS

The author would like to thank all of the many volunteers who have helped out with the previous rainbow trout transplants and with the 1999 transplant assessment on Simpson Lake. Members from the Chetwynd Rod and Gun Club and the Chetwynd Wilderness Watch Program were a big help in providing support to this project. In addition, local volunteers from Hudson's Hope assisted with the transplant assessment.

Lake: **Simpson**

APPENDIX 1

Rainbow Trout caught by electrofishing

(Inlet and Outlet Creeks)

Lake: **Simpson**

Inlet Creek

Fish Number	Length (mm)	Weight (g)	Condition Factor	Comments
1	78	6.1	1.3	
2	69	4.6	1.4	
3	73	5.3	1.4	Rotund
4	71	4.2	1.2	
5	80	5.7	1.1	

Note: One other fish was observed but escaped. The size of this fish was approximately the same as the others.

Lake: **Simpson**

Outlet Creek

Fish Number	Length (mm)	Weight (g)	Condition Factor	Comments
1	39	0.8	1.3	
2	41	1.0	1.5	
3	42	1.0	1.4	
4	42	1.0	1.5	
5	43	1.1	1.4	
6	44	1.4	1.6	
7	45	1.2	1.3	
8	46	1.1	1.1	
9	46	1.3	1.3	
10	46	1.3	1.3	Mortality
11	46	1.4	1.4	
12	46	1.4	1.4	
13	46	1.5	1.5	
14	47	1.5	1.4	
15	47	1.5	1.4	
16	48	1.2	1.1	
17	48	1.2	1.1	
18	48	1.4	1.3	
19	49	1.5	1.3	
20	49	1.6	1.4	
21	49	1.7	1.4	
22	50	1.8	1.4	
23	50	1.8	1.4	
24	50	1.9	1.5	
25	50	2.1	1.7	Mortality
26	51	1.2	0.9	Mortality
27	51	1.5	1.1	
28	51	1.6	1.2	
29	51	1.8	1.4	
30	51	1.8	1.4	
31	52	1.7	1.2	
32	52	1.8	1.3	
33	52	1.9	1.4	
34	52	1.9	1.4	
35	52	1.9	1.4	
36	52	2.0	1.4	
37	52	2.0	1.4	
38	52	2.1	1.5	
39	52	2.2	1.6	

Lake: **Simpson**

Outlet Creek Continued

Fish Number	Length (mm)	Weight (g)	Condition Factor	Comments
40	53	1.9	1.3	
41	53	1.9	1.3	
42	53	1.9	1.3	Mortality
43	53	2.0	1.3	
44	53	2.1	1.4	
45	53	2.1	1.4	Mortality
46	53	2.2	1.5	
47	54	1.9	1.2	
48	54	2.1	1.3	
49	54	2.1	1.3	
50	54	2.4	1.5	
51	55	2.0	1.2	
52	56	2.1	1.2	
53	56	2.2	1.3	
54	56	2.7	1.5	
55	58	2.3	1.2	
56	58	2.3	1.2	
57	58	2.6	1.3	
58	58	3.2	1.6	
59	59	2.3	1.1	
60	59	3.0	1.5	
61	60	2.6	1.2	
62	61	3.3	1.5	
63	62	3.3	1.4	
64	86	7.4	1.1	Mortality, no right eye
65	91	10.8	1.4	
66	93	7.9	1.0	
67	95	11.3	1.3	
68	98	11.6	1.2	
69	98	11.7	1.2	
70	98	11.8	1.3	
71	99	11.4	1.2	
72	100	12.1	1.2	
73	103	13.1	1.2	
74	107	13.0	1.1	
75	107	14.4	1.2	
76	109	13.0	1.0	
77	110	14.9	1.1	

Outlet Creek Continued

Fish Number	Length (mm)	Weight (g)	Condition Factor	Comments
78	110	19.9	1.5	
79	111	13.9	1.0	
80	112	20.9	1.5	
81	113	20.8	1.4	no right eye
82	115	18.4	1.2	
83	117	20.2	1.3	
84	117	23.8	1.5	
85	119	21.6	1.3	
86	120	21.3	1.2	
87	120	23.9	1.4	
88	121	22.5	1.3	
89	121	23.1	1.3	deformed eye
90	128	24.9	1.2	
91	150	41.7	1.2	
92	152	45.4	1.3	
93	173	75.5	1.5	
94	179	71.5	1.2	

Also observed (flashed) another 35 fish: 20 were in the 107 mm range and 15 were in the 48 mm range.

Lake: **Simpson**

APPENDIX II

Data from angler caught Rainbow Trout

(September 10 and 11, 1999)

Lake: **Simpson**

Fish captured from Simpson Lake

Date	Fish #	Length (mm)	Weight (g)	Condition Factor	Recapture	Tag # and Color	Comments
Sep. 10	1	500	1500	1.2000	Yes	blue, W0801	silver bright
Sep. 10	2	490	1350	1.1475	Yes	blue, W0598	
Sep. 10	3	550	2005	1.2051	Yes	red, W0400	silver bright
Sep. 10	4	428	850	1.0841	No	red, W0164	silver bright
Sep. 10	5	600	2250	1.0417	Yes	red, W0390	
Sep. 10	6	357	450	0.9890	no	red, W0165	silver bright
Sep. 10	7	338	425	1.1006	no	n/a	silver bright, mort.
Sep. 10	8	402	750	1.1545	no	red, W0167	silver bright
Sep. 10	9	310	350	1.1749	no	red, W0168	silver bright
Sep. 11	10	615	2600	1.1178	yes	red, W0380	
Sep. 11	11	495	1750	1.4429	yes	blue, W0585	
Sep. 11	12	314	350	1.1305	no	red, W0169	
Sep. 11	13	317	350	1.0987	no	did not tag	may be a mort.
Sep. 11	14	406	800	1.1954	no	red, W0170	
Sep. 11	15	349	450	1.0586	no	red, W0171	
Sep. 11	16	396	700	1.1272	no	red, W0172	
Sep. 11	17	217	125	1.2233	no	red, W0173	
Sep. 11	18	306	325	1.1343	no	red, W0174	
Sep. 11	19	365	550	1.1311	no	red, W0175	
Sep. 11	20	375	625	1.1852	no	red, W0176	
Sep. 11	21	359	550	1.1887	no	red, W0177	
Sep. 11	22	290	250	1.0251	no	red, W0166	
Sep. 11	23	405	800	1.2043	no	red, W0178	
Sep. 11	24	319	350	1.0782	no	red, W0179	
Sep. 11	25	245	175	1.1900	no	red, W0180	
Sep. 11	26	274	250	1.2153	no	red, W0181	
Sep. 11	27	295	275	1.0712	no	red, W0182	
Sep. 11	28	505	1550	1.2035	yes	blue, W0769	
Sep. 11	29	256	225	1.3411	no	red, W0183	
Sep. 11	30	254	150	0.9154	no	red, W0184	
Sep. 11	31	270	225	1.1431	no	red, W0185	
Sep. 11	32	620	2900	1.2168	yes	red, W0428	
Sep. 11	33	275	200	0.9617	no	red, W0186	
Sep. 11	34	405	800	1.2043	no	red, W0187	
Sep. 11	35	363	550	1.1499	no	red, W0188	
Sep. 11	36	371	600	1.1750	no	red, W0189	
Sep. 11	37	253	175	1.0806	no	red, W0190	
Sep. 11	38	420	825	1.1135	no	red, W0192	
Sep. 11	39	446	1100	1.2399	no	red, W0193	
Sep. 11	40	410	800	1.1607	no	red, W0194	
Sep. 11	41	422	900	1.1976	no	red, W0195	

APPENDIX III

Length and tag data for Rainbow Trout transplanted into Simpson Lake in 1996, 1997, and 1998

(See Langston and Zemlak 1998 for the 1994 transplant results)

Lake: **Simpson**

July 13, 1996

A total of 62 rainbow trout were transplanted into Simpson Lake.

Fish Number	Length (mm)	Tag Number	Fish Number	Length (mm)	Tag Number
1	195	No tag	32	266	W0426
2	235	W0401	33	240	W0427
3	190	No tag	34	198	No tag
4	215	W0402	35	295	W0428
5	226	W0403	36	213	W0429
6	184	No tag	37	242	W0430
7	165	No tag	38	212	W0431
8	233	W0404	39	182	No tag
9	216	W0405	40	175	No tag
10	233	W0406	41	165	No tag
11	281	W0407	42	200	W0432
12	271	W0408	43	213	W0433
13	295	W0409	44	214	W0434
14	255	W0410	45	232	W0435
15	232	W0411	46	243	W0436
16	219	W0412	47	220	W0437
17	230	W0413	48	222	W0438
18	221	W0414	49	259	W0439
19	295	W0415	50	208	W0440
20	239	W0416	51	243	W0441
21	226	W0417	52	277	W0442
22	265	W0418	53	238	W0443
23	240	W0419	54	206	W0444
24	270	W0420	55	290	W0445
25	284	W0421	56	264	W0446
26	198	No tag	57	215	W0447
27	212	W0422	58	238	W0448
28	225	W0423	59	276	W0449
29	312	W0424	60	270	W0450
30	295	06573[1]	61	248	W0451
31	279	W0425	62	212	W0452

[1] All Floy tags (2.5 cm long) were red (except for one, it was yellow).

Lake: **Simpson**

June 28, 1997

A total of 75 rainbow trout were transplanted into Simpson Lake.

Fish Number	Length (mm)	Tag Number	Fish Number	Length (mm)	Tag Number
1	204	W0357	39	320	W0375
2	222	W0358	40	283	W0374
3	244	W0359	41	305	W0373
4	235	W0360	42	234	W0372
5	209	W0361	43	206	W0371
6	221	W0362	44	211	W0370
7	278	W0363	45	241	W0369
8	288	W0364	46	246	W0368
9	212	W0365	47	237	W0453
10	252	W0366	48	230	W0454
11	274	W0367	49	211	W0455
12	209	W0400	50	210	W0456
13	153	No tag	51	298	W0457
14	253	W0399	52	192	No tag
15	250	W0398	53	231	W0458
16	220	W0397	54	208	W0459
17	202	W0396	55	200	W0460
18	211	W0395	56	205	W0461
19	212	W0394	57	253	W0462
20	200	W0393	58	265	W0463
21	269	W0392	59	304	W0464
22	228	W0391	60	372	W0465
23	229	W0390	61	237	W0466
24	236	W0389	62	259	W0467
25	227	W0388	63	240	W0468
26	238	W0387	64	310	W0469
27	220	W0386	65	210	W0470
28	234	W0385	66	214	W0471
29	338	W0384	67	244	W0472
30	233	W0383	68	239	W0473
31	234	W0382	69	239	W0474
32	157	No tag	70	213	W0475
33	232	W0381	71	194	W0476
34	258	W0380	72	290	W0477
35	235	W0379	73	325	W0478
36	216	W0378	74	239	W0479
37	268	W0377	75	241	W0480
38	235	W0376	End	-	-

All Floy tags were red, 2.5 cm long.

Lake: **Simpson**

June 27, 1998

A total of 133 rainbow trout were transplanted into Simpson Lake.

Fish Number	Length (mm)	Tag Number	Fish Number	Length (mm)	Tag Number
1	215	W0567	39	217	W0596
2	225	W0568	40	215	W0597
3	226	W0569	41	223	W0598
4	209	W0570	42	220	W0599
5	196	No tag	43	199	No tag
6	230	W0571	44	227	W0600
7	197	No tag	45	226	W0761
8	244	W0572	46	207	W0762
9	209	W0573	47	248	W0763
10	228	W0574	48	232	W0764
11	224	W0575	49	215	W0765
12	228	W0576	50	227	W0766
13	286	W0577	51	208	W0767
14	185	No tag	52	268	W0768
15	199	No tag	53	228	W0769
16	229	W0578	54	228	W0770
17	231	W0579	55	231	W0771
18	275	W0580	56	228	W0772
19	232	W0581	57	200	W0773
20	187	No tag	58	208	W0774
21	234	W0582	59	226	W0775
22	195	No tag	60	260	W0776
23	208	W0583	61	245	W0777
24	237	W0584	62	210	W0778
25	280	W0585	63	194	No tag
26	208	W0586	64	225	W0779
27	230	W0587	65	206	W0780
28	286	W0588	66	196	No tag
29	282	W0589	67	230	W0781
30	185	No tag	68	201	W0782
31	237	W0590	69	224	W0783
32	198	No tag	70	216	W0784
33	229	W0591	71	281	W0785
34	220	W0592	72	228	W0786
35	250	May die?	73	169	No tag
36	311	W0593	74	156	No tag
37	215	W0594	75	187	No tag
38	234	W0595	76	235	W0787

Lake: **Simpson**

June 27, 1998 Continued

Fish Number	Length (mm)	Tag Number	Fish Number	Length (mm)	Tag Number
77	302	W0788	106	210	W0817
78	203	W0789	107	223	W0818
79	263	W0790	108	189	No tag
80	237	W0791	109	233	W0819
81	233	W0792	110	287	W0820
82	284	W0793	111	201	Skinny
83	203	W0794	112	247	W0821
84	290	W0795	113	213	W0822
85	244	W0796	114	278	W0823
86	243	W0797	115	229	W0824
87	234	W0798	116	254	W0825
88	240	W0799	117	282	W0826
89	273	W0800	118	241	W0827
90	216	W0801	119	225	W0828
91	225	W0802	120	220	W0829
92	219	W0803	121	308	W0830
93	302	W0804	122	202	W0831
94	215	W0805	123	238	W0832
95	222	W0806	124	210	W0833
96	290	W0807	125	215	W0834
97	208	W0808	126	227	W0835
98	224	W0809	127	292	W0836
99	227	W0810	128	211	W0837
100	209	W0811	129	198	No tag
101	226	W0812	130	228	W0838
102	240	W0813	131	254	W0839
103	232	W0814	132	228	W0840
104	236	W0815	133	205	W0841
105	241	W0816	End	-	-

All Floy tags were blue, 2.5 cm long.